

SALTON SEA ADVISORY COMMITTEE MEETING

**June 2, 2006
9:30 – 3:30
Sacramento, CA**

Welcome and Introductions

Mike Chrisman, Secretary for Resources, welcomed the Committee Members and led introductions of those present (see attached list).

Updates from the Resources Agency

Secretary Chrisman provided an update on the status of the project. The Ecosystem Restoration Study (ERS) and Draft Programmatic Environmental Impact Report (PEIR) are currently under preparation and are anticipated to be completed later this month and released to the public in mid-July. As discussed in detail later in the meeting, the final range of alternatives includes the Salton Sea Authority's (SSA's) Combined North and South Lakes alternative, and the Imperial Group's Concentric Lakes alternative. The Pacific Institute recently released a report evaluating the conditions at the Salton Sea if a restoration project were not implemented. The report is available on the Pacific Institute's website (www.pacinst.org).

Public Comments

No public comments were provided.

Overview of QSA Habitat Mitigation

Bruce Wilcox, Imperial Irrigation District (IID), provided an update on the implementation of habitat-related mitigation measures for the IID Water Conservation and Transfer Project. Most of the habitat assessments have been completed, and baseline surveys are anticipated to begin shortly. Goals and objectives are being developed for the Natural Community Conservation Plan and a public information meeting is tentatively scheduled in July.

Update on U.S. Bureau of Reclamation Activities

Mike Walker, U.S. Bureau of Reclamation (Reclamation), provided an update on Reclamation's Feasibility Study. Reclamation is continuing to evaluate the various engineering and environmental aspects of the alternatives. Cost estimates are also under development. In addition, Reclamation recently executed two cooperative agreements with the SSA for an in-Sea geotechnical investigation and a quarry investigation. Mr. Walker noted that completion of the Feasibility Study is dependent on

the progress of the two additional studies by the SSA. The draft Feasibility Study is scheduled to be completed in October/November.

Update on Salton Sea Authority's Activities

Rick Daniels, Salton Sea Authority, provided an update on the SSA's activities. The SSA supports the State's process and has been working with the State to provide information on the Combined North and South Lakes alternative. The SSA is working to seek consensus at the local level with its member agencies, and is actively working to keep the public involved and up-to-date. Mr. Daniels noted that the Salton Sea is an asset for wildlife and future growth east of the Los Angeles and San Diego regions.

Update on Pilot Shallow Water Habitat Project

Doug Barnum, U.S. Geological Survey, provided an update on the construction and development of the Pilot Shallow Water Habitat Project. The project consists of four shallow "cells" adjacent to the Salton Sea near the Alamo River. Water is diverted from the Alamo River and blended with water from the Salton Sea to achieve desired salinities. The objectives of the project include evaluating construction techniques for levees and islands, evaluating durability of levees constructed with local sediments, evaluating water, sediments and aquatic invertebrate response, and evaluating bird use of the site. Currently the project has funding for two years and additional grant funding is anticipated for an additional two years.

Construction activities were initiated in early 2006. Difficult site conditions encountered during construction included shallow groundwater and soft soils/sediments. Initial filling of the first cell began in late April. The first black-necked stilt was observed on an island in Cell Number 1 within one week of initial filling. Overall bird use of the site has been high including nesting by some species. An evaluation of nest fate is underway. Some predation has been recorded.

Dr. Barnum noted that relationships between water and sediment quality can be used to "filter out" or account for background contaminants. Per unit construction costs should also be available and will be provided to the Committee Members. However, an evaluation of durability and long-term maintenance costs will not be available for some time.

Update on Final Range of PEIR Alternatives

Gwen Buchholz, CH2M HILL, provided an update on the final alternatives. An overview of the purpose of the Draft PEIR, incorporation of other assumptions and features in the program-level analysis, and the key features, phasing, and costs of the final range of alternatives was also provided. Ms. Buchholz noted that the Draft PEIR will allow for comparison of generalized alternative approaches to restoring the Salton Sea. However, the document will not address specific locations or final design criteria for facilities. Common assumptions were used to allow for comparisons among

alternatives, and these assumptions can be modified in future project-level analysis. A variety of factors will need to be addressed in future project-level analysis, such as accommodations for future geothermal development, recreational opportunities, and local land use developments.

In response to a question from the Committee, it was noted that the existing geothermal facilities adjacent to the Sea are located in an area of about 7 square miles. The footprint of a typical geothermal plant is about 20 acres, with pipelines extending about 11 miles to and from the extraction and injection wells. Committee Member Mr. Signorotti, Geothermal Energy Association, noted that Salton Sea Unit 6 was recently permitted through the California Energy Commission and biological resource concerns were mitigated. Mr. Signorotti also added that it is critical that geothermal interests work closely with the restoration project to ensure that future wildlife areas can coexist with future geothermal development. Another Committee Member stated that it is important for the habitat complex to be spread throughout the Salton Sea and not concentrated in one area. Ms. Buchholz noted that this is an example of the types of site-specific issues and concerns that will need to be addressed in the project-level analysis.

Ms. Buchholz provided an overview of the final range of alternatives. The final range of alternatives includes eight action alternatives and two No-Action Alternatives. The alternatives will be evaluated at an equal level of detail in the Draft PEIR using similar assumptions. In response to a question from the Committee, it was noted that islands and snags can be added to Alternative 3, Concentric Rings in a future project-specific environmental document. For the purposes of the Draft PEIR, Alternative 7, Combined North and South Lakes, will be evaluated using both the inflows projected by the SSA and the inflows used for the other alternatives (the No Action Alternative-CEQA and Variability Conditions inflows).

Impact Assessment for Biological Resources

David Christophel, CH2M HILL, provided an overview of the impact assessment for biological resources. The impact assessment considers construction, operation, and maintenance of the project alternatives, along with the overall long-term benefits of the restoration program. Although there may be substantial impacts during initial construction of the project, all of the project alternatives improve the long-term conditions for biological resources at the Salton Sea.

Construction and operation and maintenance impacts were evaluated using a qualitative approach, and were addressed in general terms, as opposed to identification and characterization of site-specific impacts. The impact assessment seeks to evaluate the resources at the Sea at the time of construction. All action alternatives would result in potentially significant construction-related impacts on biological resources, and the barrier alternatives have the greatest potential to impact biological resources. Operations and maintenance impacts are likely to be less than significant and can be minimized or in some cases, avoided.

With regard to benefits of the project, a qualitative evaluation was conducted for the ability of a created waterbody to support fish (primarily tilapia), and bird use was projected based on modeling conducted by Point Reyes Bird Observatory (PRBO). With regard to fish populations, all created waterbodies with suitable salinity and water quality are likely to support tilapia. Increased diversity of fish species would require future introductions. However, due to the continuation of highly eutrophic conditions at the Sea, the fish populations are likely to continue to experience periodic die-off events. In response to a question from the Committee, it was noted that the analysis did not seek to estimate fish population densities.

With regard to bird populations, the modeling approach was based on bird densities at the Salton Sea in 1999, and also utilized bird densities for shallow, saline habitats in the San Francisco Bay salt ponds. Fifteen bird species were used in the analysis and the analysis was based on conditions at the end of the study period (2078). Based on a question from a Committee Member, it was noted that the modeling analysis focused on species that rely on the Salton Sea for all or most of their habitat needs, because the project is likely to result in the greatest impacts to these species. Many species not included in the modeling analysis, such as waterfowl species, are not expected to be substantially affected by the project and will be discussed in the Draft PEIR.

Mr. Christophel noted that the model results are still under review; however, based on preliminary results, bird diversity is likely to be retained and all species evaluated in the model are likely to persist at the Salton Sea following restoration. However, relative to the 1999 conditions, abundance may decline for some species and increase for others. Some factors within management control, such as salinity, influence bird use and should be adaptively managed over time.

It was noted that management aspects of the Saline Habitat Complex, such as seasonal flooding regimes will be considered in future project-level analyses.

Impact Assessment for Ecological Risk

Harry Ohlendorf, CH2M HILL, provided an overview of the ecological risk impact assessment. The analysis focused on selenium and used the U.S. Environmental Protection Agency and State of California guidance. Data sources included historical data, and sampling and studies conducted in 2005. Future conditions were modeled on the basis of biota/water or sediment paired samples, selenium concentrations in inflow water, and estimates of selenium loading to sediments. The analysis included the following key assumptions: (1) selenium behavior would be similar in the future to that under current conditions; (2) receptors evaluated are representative of other species in their guilds; and (3) exposure conditions depend mainly on selenium loading from inflow sources and selenium concentrations in sediments. The analysis was conducted for full build-out conditions; transitional phases were not quantitatively evaluated. Three exposure models were used for the analysis, including a concentration-based model, a dosage-based model, and a tissue-based model. Impacts were assessed at the

community level, population level, or individual level using representative species for different Salton Sea habitats.

Based on the analysis, two alternatives, Alternative 1-Saline Habitat Complex I and Alternative 2-Saline Habitat Complex II, were estimated to have a risk similar to recent conditions (although the numbers of receptors differed, so direct comparisons can not be made). The No Action Alternatives were estimated to have risks less than recent conditions, and the remaining alternatives were estimated to have risks greater than the recent conditions. Overall, habitats created on sediment with high selenium concentrations and habitats created with water from the Alamo and New rivers or IID drains that discharge directly into the Sea were estimated to have a greater ecological risk.

Impact Assessment for Air Quality

Pamela Vanderbilt, CH2M HILL, provided a summary of the air quality impact assessment. Both quantitative and qualitative significance criteria were used for the assessment. Quantitative criteria were based on the various local air district's California Environmental Quality Act criteria and were used to estimate construction, operations and maintenance emissions, along with emissions from exposed playa areas. Qualitative criteria included odors and maintenance of the microclimate provided by the Sea.

With regard to construction, operations, and maintenance emissions, a screening level analysis was conducted to focus on the major project elements that could affect air quality. Emissions estimates were prepared for these elements based on available information and established emissions factors. Construction emissions were estimated for fugitive dust and machinery exhaust. For construction-related impacts, the analysis focused on particulate matter less than 10 microns in diameter (PM10) and ozone. However, future project-level analysis will need to consider a variety of emissions. For the purposes of the analysis, it was assumed that unpaved roads were watered twice a day.

Based on the analysis, PM10 emissions during the Peak Construction Year were estimated to exceed the South Coast Air Quality Management District's threshold of 70 tons per year for all of the alternatives except the No Action Alternatives and Alternative 4-Concentric Lakes. Some alternatives were estimated to substantially exceed the thresholds. However, when alternative methods were used to transport and place rock and gravel, and construction roads were assumed paved, then PM10 emissions for all alternatives were estimated to be below the threshold. Nitrogen oxide (NOx) emissions during the Peak Construction Year were estimated to exceed the South Coast Air Quality Management District's threshold of 50 tons per year for Alternative 3-Concentric Rings, Alternative 4-Concentric Lakes, Alternative 5-North Sea, Alternative 6-North Sea Combined, Alternative 7-Combined North and South Lakes, and Alternative 8-South Sea Combined. The largest NOx emissions contribution was estimated to be from

tugboats and barges, and most alternatives would not exceed the thresholds if alternative methods to transport and place rock and gravel were used.

Emissions from exposed playa areas were estimated using preliminary PI-SWERL data collected at the Salton Sea, threshold wind speeds, wind data, and seasonality changes in the stability of the playa. Emissions were estimated with and without the implementation of Air Quality Management measures. The primary contributors to estimated emissions were the size of the exposed area, the level of control proposed, measured wind speed, and seasonal changes in playa stability and emissivity. For the purposes of the analysis it was assumed that 50 percent of the exposed playa would require the use of water efficient vegetation, 20 percent would need seasonal/temporary management, and the remaining 30 percent of the exposed playa would not be emissive. There was limited information for Alternatives 4 and 7 on control measures, and therefore, these alternatives were estimated to result in substantially higher emissions. If these alternatives used control measures similar to those used for the other project alternatives, then emissions would likely be similar to the other alternatives. Based on the analysis, all of the alternatives, including the No Action Alternatives, were estimated to exceed the South Coast Air Quality Management District's threshold of 70 tons per year for PM10 emissions during Phase IV, when the exposed areas are at their largest size. Alternative 4-Concentric Lakes and Alternative 7-Combined North and South Lakes were estimated to far exceed the threshold, because these alternatives were assumed to include the use of limited or no long-term control measures.

In Phase I, when construction, operations, and playa emissions are combined in the Peak Construction Year, all of the alternatives, except the No Action Alternatives, exceed the South Coast Air Quality Management District's threshold for PM10 emissions. In Phase IV, when construction, operations, and playa emissions are combined in the Peak Operations Year, all of the alternatives including the No Action Alternatives exceed the South Coast Air Quality Management District's threshold for PM10 emissions. Overall, the alternatives incorporate a variety of measures to reduce air quality emissions, but the measures were not able to eliminate emissions.

Comparison of Impact Assessment Results

Gwen Buchholz provided a comparison of the impact assessment results. It is important to understand the differences between alternatives and different ways to rank, prioritize, and compare these differences. Phased implementation of alternatives should be considered to allow for pilot tests and adaptive management of the ecosystem as more information becomes available. Many of the details of the alternatives and their operations, such as specific locations of facilities, facility sizes, and pond flooding regimes, will be considered in the project-level analysis. In addition, accommodation of other activities such as geothermal, recreation, and land development will be considered in the project-level analysis. A Committee Member noted that there may be synergistic or additive effects that need to be considered in selecting a preferred alternative.

Review of Draft PEIR Process

Dale Hoffman-Floerke, Department of Water Resources, provided an overview of the review process for the Draft PEIR. Due to the complexity of the project, the document is taking a little longer to prepare than originally anticipated, and the Draft PEIR is scheduled to be released to the public in mid-July. The document will be available on the project website (www.salttonsea.water.ca.gov) and CDs will be available upon request. To keep the project on schedule and meet the legislative deadline, the public review period will be 60 days. Formal public hearings will be held to receive comments on the Draft PEIR and written comments will be accepted throughout the review period.

The Final PEIR will include responses to comments received on the Draft PEIR, modifications to the Draft PEIR, and a recommended preferred alternative. The Final PEIR will likely not be ready until late in the year.

Approach for Development of the Finance Plan

Gwen Buchholz provided an overview of the approach to developing the Financing Plan. The Financing Plan will be prepared only for recommended preferred alternative, and will include a construction, operations and maintenance schedule, a cash flow analysis for all phases of the project, and will identify key decision points in the schedule.

A Committee Member suggested that financing sources for the project be identified in the Financing Plan. After some discussion by the Committee, it was noted that the Financing Plan should identify and summarize the different possible funding sources, and identify steps or actions needed to obtain funding from each source. However, the Financing Plan should not attempt to allocate or direct different funding sources.

Summary of Action Items

The next Advisory Committee meeting will be held on August 2, 2006 in the San Diego area. The location will be provided shortly.

Handouts

Copies of the following presentations and related materials:

- Update on Final Alternatives
- Impact Assessment for Biological Resources
- Impact Assessment for Ecological Risk
- Impact Assessments for Air Quality
- Comparison of Impact Assessment Results
- Review Process for Draft PEIR
- Approach to Financing Plan

ATTENDANCE

Advisory Committee Members or Alternates Present:

Greg Austin, U.S. Fish and Wildlife Service
Marie Barrett, New River Citizens Congressional Task Force
Steve Birdsall, Imperial County Air Pollution Control District
Fred Cagle, Sierra Club
Celeste Cantu, State Water Resources Control Board
Kim Delfino, Defenders of Wildlife
Bill DuBois, California Farm Bureau Federation
Rick Hoffman, Riverside County
Julia Levin, Audubon California
Al Loya, Torres-Martinez Desert Cahuilla Indians
Elliot Mulberg, Air Resources Board
Dan Parks, Coachella Valley Water District
Larry Purcell, San Diego County Water Authority
Tom Raftican, United Anglers of Southern California
Jason Rhine, California Waterfowl Association
Frank Shipley, U.S. Geological Survey
Vincent Signorotti, Geothermal Energy Association
Pete Silva, The Metropolitan Water District of Southern California
Mike Walker, U.S. Bureau of Reclamation
Bruce Wilcox, Imperial Irrigation District
John Wohlmuth, Coachella Valley Association of Governments
Nancy Wright, Regional Water Quality Control Board
Gary Wyatt, Imperial County